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Introduction

This analysis of the livestock subsector in the Eastern Cape was undertaken as a joint effort between ComMark and the Triple Trust Organisation (TTO). The three million strong cattle herd in the Eastern Cape accounts for over 22 percent of the total cattle in South Africa and the majority of this (1,9 million head) is owned by 150,000 families living in the communal areas of the province and classified as historically disadvantaged farmers (HDF). Production and ownership patterns vary considerably between most HDF (living primarily on communal lands) and commercial farmers, with the former owning cattle as a source of wealth accumulation, as draft animals and sources of milk and manure, and to fulfilling customary functions. Meanwhile, commercial farmers tend to raise them strictly for meat and dairy. As a result of this, off-take from the communal areas tends to be very low (under five percent) compared to commercial farmers (about 30 percent), possibly reducing the potential value to the communal farmers. TTO seeks to facilitate a set of market led interactions to stimulate the involvement of HDF in the formal livestock industry in the Eastern Cape. Such an intervention would be targeted at those communal farmers wishing to farm commercially as well as those who have gained access to land in commercial areas though land reform processes and other means.

Before launching the study ComMark convened two sets of meetings with leading stakeholders in the livestock industry to determine if there was scope for carrying out a study that would add value to the industry and might indicate some future course of action. These participants included representatives from the South African Meat Industry Company (SAMIC), the National Emergent Red Meat Producers' Organisation (NERPO), and representatives from the USAID Promoting Agribusiness Linkages (PAL) project, which has been working in the livestock sector in the Eastern Cape for the past four years, promoting livestock marketing. During the discussions, it was clear that the livestock sector in South Africa had been studied extensively and the major issues facing the industry were quite well known.

However, from the discussions it also became clear that relatively little was understood about the role and potential for HDF in the commercial livestock industry. While there has been research into cattle ownership patterns by HDF, there is little information about the types of cattle herders, the process through which communal cattle farmers enter the commercial channels and the scope for stimulating them to become active participants in the commercial livestock industry. Therefore, the participants agreed that there would be considerable value in carrying out a study that would try to segment the different types of HDF cattle herders and analyze the dynamics within the industry to determine the main opportunities, as well as challenges, that HDF will face to enter into the formal commercial livestock sector.

In order to keep the study focused and most relevant to local farmers, it was agreed that it would focus on cattle and beef production, which is the dominant form of red meat in the

Eastern Cape¹. An important consideration for this study is that the Eastern Cape represents a very different market dynamic for beef production and marketing than the rest of the country. With three million head of cattle spread across a large number of smaller cattle herders, it has the largest population of communal cattle herders in the country. However, while 80 percent of the formal beef industry flows through feedlots to the abattoirs, these feedlots are concentrated near the maize producing areas. As there is no formal feedlot production of beef in the Eastern Cape, and feedlot cattle are located at a considerable distance to the main abattoirs in the Eastern Cape, the market for beef in the Eastern Cape is supplied by very different channels, as will be seen below.

The Study Methodology

The initial field work for the study was carried out in November and December 2003 involving Mike Murray, a lead researcher from TTO and William Grant (a team leader from ComMark). To ensure maximum integration into the sector, ComMark contracted with the NERPO, to participate in the research side of the study, as well as Nick Vink from the University of Stellenbosch to conduct a market analysis.

Mr. Grant and Oupa Mathebula from NERPO carried out interviews with most of the main stakeholders in the industry, including SAMIC, the Red Meat Producers Organisation (RPO), Vleissentral (leading auction company), the South African Feedlot Association (SAFA), and the National Department of Agriculture (NDA). These initial interviews placed the industry in its current context and raised quite a few issues for consideration during the design and implementation of the fieldwork. Key documents on the livestock sector (see bibliography) were reviewed from the National Agricultural Marketing Council (NAMC), the NDA, the University of Free State, SAMIC, and NERPO, as well as websites from SAMIC and the Abattoir Association.

The field work was carried out between December 9 and 20 in the Eastern Cape. NERPO provided three of its interns from East London to serve as field researchers for the study. The team benefited from the assistance of the PAL project staff, who have been working on livestock marketing in the Eastern Cape for the past four years. Before commencing with the field survey of HDF, the team visited the main production areas and held meetings with many sets of stakeholders in the region, including:

- agricultural researchers from Fort Hare;
- farmer groups in communal areas;
- representatives of Elliot Brothers auction house;
- the head of the East London Abattoir and toured the abattoir; and
- the staff from the Agricultural Development Research Institute at Dohne to discuss the livestock improvement programme.

In addition the team participated in an auction in a commercial production area and interviewed numerous HDF participants in the auction and participated in an auction in a non commercial production area, and interviewed numerous participants in the auction;

¹ The Eastern Cape is also a large producer of sheep meat and other livestock products such as wool, dairy, hides and skins.

These interviews and meetings provided a more focused Eastern Cape perspective on top of the national framework to help complete the design of the focus the field surveys.

Given that there has been a lot of research carried out on the industry, this report will not provide a comprehensive analysis of the industry in South Africa. Rather it will pick out the most important issues and will focus on the key issues for HDF in the Eastern Cape. This document is complemented by two other studies carried out under this contract and includes their main conclusions:

- Small farmer cattle ownership production and marketing in the Eastern Cape *Province*, 1st and 2nd phase prepared by Mike Murray for TTO, and
- Notes on the regional red meat industry prepared by Prof Nick Vink from Stellenbosch.

Overall structure of the cattle industry in South Africa

The livestock industry in South Africa has changed drastically in the past decade. The gradual liberalization of the industry, which was completed in 1999, has led to a complete shift in the dynamics within the industry. It has moved from being a supply driven, single marketing channel industry controlled by the Meat Board to a multichannel, market driven industry. This evolution is reviewed briefly here to set the scene for the for the rest of the study.

Status until 1996

Up until the promulgation of the 1996 Marketing Act, the Meat Scheme was managed by the Meat Board which included:

- Operating a single channel marketing system of slaughter animals, meat, offal and hides & skins;
- Operating a floor price system;
- Conducting of offal pools;
- Issuing of permits for the purchase and sale of slaughter anmals, meat, offal and hides & skins;
- Providing an information service; and
- Promoting the consumption of red meat².

The Meat Scheme in the early 1990's included controlled and uncontrolled areas. The controlled areas included the seven major consumer centers, into which only live animals could enter. After slaughter at the large city abattoirs, most of the meat was sold as carcasses through 11 public auctions at these abattoirs. In 1993, the Minister of Agriculture repealed the laws prohibiting the movement and method of sale of slaughter animals and red meat products.

The abolition of the controlled areas effectively opened up many channels for marketing and slaughtering livestock. This moved the slaughter from the consumer centers (city abattoirs) to the areas of production (rural areas). Many new small and medium abattoirs were opened in the production areas. This led to an oversupply of slaughter capacity, mostly in the city abattoirs, making them less economically viable.

Other key regulations which helped the Meat Board to govern the sector included a floor price system for livestock carcasses (repealed in 1993), conducting offal pools (transferred to Abakor Ltd in 1993), and the Meat Board was the sole importer of red meat.

² Investigation by the National Agricultural Marketing Council into the effect of deregulation on the red meat industry, March, 2001, p. 17

Current structures in the red meat industry

In December 1997, the Meat Board ceased its operations. It has been replaced by several different structures: the Red Meat Research and Development Trust has taken over the management of research contracts; the Meat Industry Trust was created in 1998, and the Meat Forum was established in 1996 to bring together all of the key stakeholders.

SAMIC was created in 1997 as a Section 21 company to be:

- the custodian of the South African red meat industry,
- to unify the strategic initiatives of all industry role-players by promoting effective communication and coordination of their efforts; and
- be efficient in the provision of specific common services required by the industry.³

SAMIC is funded by the MIT and by fees for services rendered to users.

Key associations working with the sector include the Red Meat Producers Organisation (RPO) which is associated with the National Emergent Red Meat Producers' Organisation (NERPO) to support and represent the producers. RPO is funded through a 0.15% levy from sales and has about 13,000 members.

In support of the emergent farmers there are three main active actors: NERPO, the National Department of Agriculture, and the Agricultural Research Centers. NERPO focuses on the emergent commercial farmers, while the other two are more concerned with the communal farmers and the overall composition of the industry.

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³ ibid, p. 20

Cattle and Beef in South Africa

South Africa is primarily produces meat for the domestic market. Though it has some exports of meat, it has been a significant importer of cattle until the very recent past. The regional trade dynamic presents an important competitive overview.

South Africa has traditionally been a net importer of red meat, with most imports sourced from Botswana and Namibia. The red meat industry in South Africa was controlled by statute from the time of the Meat Trade Control Act of 1932. Control was exercised in terms of the Marketing Act from 1945. Deregulation started with the abolition of the restrictions on the movement of animals from uncontrolled to controlled areas in 1992 and the abolition of restrictive registration requirements for producers, abattoir agents, butchers, dealers, processors and importers in 1993. The Red Meat Scheme was terminated in 1998. Nevertheless, the industry is still directly protected by a high tariff from imports beyond SACU, as shown below.

Table 1: Beef tariffs in SACU

		Duties	Duties				
Tariff Code	Product Description	Standard	MFN	EU	SADC	Zimbabwe Trade	Import Permit
						Agreement	Required
0201	Beef	40%	40%		32%	Full rebate	Free

Industry-level data on red meat consumption in South Africa need to be interpreted with great circumspection, for two important reasons. First, the existence of the informal trade in meat is widely recognised, and has been researched⁴, but little is known about its magnitude. There is evidence that the production and the consumption of red meat could be under-recorded by as much as 50%, and that the informal trade in especially beef and mutton really only took off from the late 1980s, i.e. it coincided with the deregulation process. Second, little is known in South Africa about the aggregate behaviour of farmers who keep cattle on communal grazing lands in the former homeland areas beyond the fact that about a third of the total South African cattle herd is kept in these areas, and that the ownership of this herd is very skewly distributed in favour of the relatively wealthy⁵..

Despite a decline in the real price of beef and an increase in the real price of white meat, there has been no change in the declining trend in per capita consumption of red meat and the increasing trend in the per capita consumption of white meat over the past three decades (see Figure 1).

⁴ See for example: Karaan ASM and Myburgh AS (1992). Food distribution systems in the urban informal markets: the case of red meat marketing in the Western Cape townships and informal settlements. *Agrekon*, 31(4): 289-293.

⁵ Vink N (1986). An institutional approach to livestock development in southern Africa. PhD thesis, University of Stellenbosch.

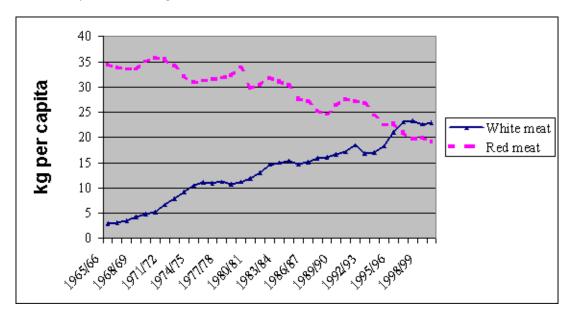


Figure 1: Trends in per capita consumption of red and white meat in SA

Regional trade of cattle in SACU

As noted above, there is now duty on cattle and beef traded between the SACU countries. Figure 2, below shows the flow of cattle from each of the countries. It is clear that Namibia has been a major exporter until the last few years and that South Africa has been the major importer from Namibia to meet its domestic demand. As South Africa's production has caught up to consumption, imports have declined, so have Namibia's exports. Botswana has historically exported very few live cattle.

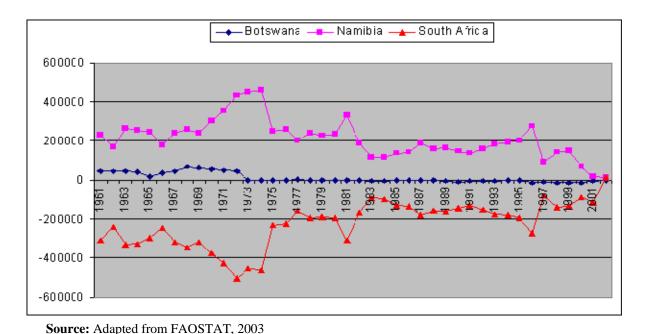


Figure 2: Net exports of cattle, Botswana, Namibia and South Africa

A potentially more interesting trend is that of the net exports of beef from Botswana, Namibia and South Africa. Botswana and Namibia have traditionally exported live cattle and beef to South Africa, a trade in relatively low value products that started with the advent of the mining industry. South Africa has also traditionally been a net importer of red meat, and of beef in particular. However, this seems to be changing, as is reflected in Figure 3, below.

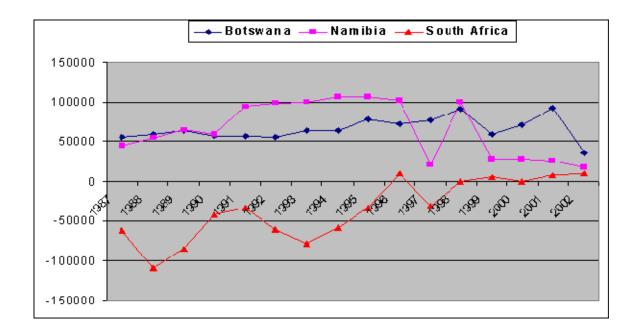


Figure 3: Net exports of beef, Botswana, Namibia and South Africa

Figure 3 demonstrates that South Africa has been a net exporter of beef over the past five years.

Supply and demand for livestock products in South Africa

The South African consumer is a high end consumer of meat. The majority of the beef that is formally slaughtered is grade "A". It is very young - 12-14 months – and lean. It is coming out of the feedlots. Approximately 1.9 million head are slaughtered every year through the formal abattoirs, and an estimated additional 300,000 through informal channels⁶. Of these about 1.4 million are coming out of the feedlots and only 500,000 from free range.

Total consumption only averages about 12 kg per person, which is low for beef producing countries. In contrast to South Africa's relatively low consumption of beef,

⁶ These informal channels include both on-farm slaughter as well as illegal butchery slaughter in urban areas.

other major beef producing countries have much higher domestic consumption ranging from 34.6 kg per capita in Brazil to over 60 kg per capita in Uruguay and Argentina.⁷

These are the following categories of beef in the market:

- Grade A: young cattle, no permanent incisors, from feedlot
 - Ranges from 0 to 6 where 0 is lean and 6 is fat
 - Captures a 5- 10% premium
- Grade A/B 2-3 years, primarily veldt and rangefed
- Grade B Three years all rangefed
- Grade C Four years and over (95% of communal farmers are selling grade C). Fat Grade C often sells for more than grade B, lean for less.

There is a strong seasonal flow in the pricing of meat in the country, as seen in the figure 4, below. There is normally a price increase as the year progresses, peaking in September October and then coming down steadily towards Christmas and the new year as there is less money in the communities. In 2001, the very sharp spike in prices in November were due to the rapid depreciation in the value of the rand.

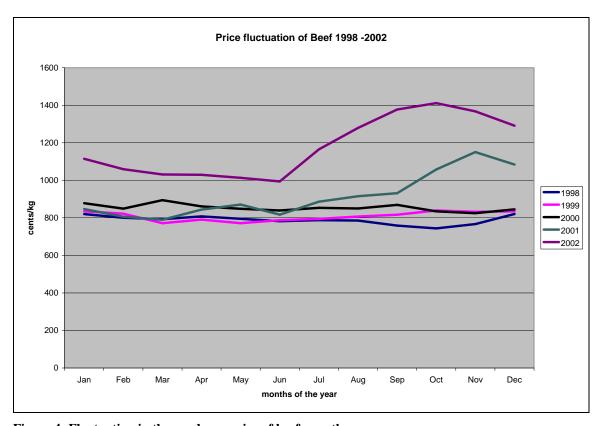


Figure 4: Fluctuation in the producer price of beef over the year.

⁷ Investigation by the National Agricultural Marketing Council into the effect of deregulation on the red meat industry, March, 2001, p. 23

Demand for livestock products

Future aggregate demand for livestock products in South Africa will depend on the same factors that are driving the livestock revolution – population growth, urbanisation and income growth. These three factors influence the income elasticity of demand, which is a measure of the rate at which changes in these factors result in changes in the quantity demanded for livestock products.

South African data on the production and consumption of red meat are suspect, as an unknown but high proportion is sold into the informal market). Nevertheless, Nieuwoudt (1998a)⁸ has estimated the future demand for livestock products in South Africa based on changes in population growth, urbanisation and income growth. His estimates may be optimistic, as population growth rate estimates have been considerably lowered recently as more information on the effects of the HIV/AIDS pandemic becomes available⁹. However, they may be pessimistic, as estimates of the extent of the rate of urbanisation are revised upwards. The projections are also highly sensitive to assumptions about income growth among the urban black population because of their higher income elasticities of demand for livestock products.

Nevertheless, it has been estimated that the demand for animal products in South Africa will increase by between 1.2-fold for cheese and 1.6-fold for beef and eggs by 2020 under a pessimistic economic growth scenario and by between $1\frac{1}{2}$ -fold for pork and $5\frac{1}{2}$ -fold for beef under an optimistic economic growth scenario.

These estimates could be conservative if the livestock industry was able to reverse the negative consumer perceptions regarding saturated fats. In South Africa, for example, generic advertising has virtually ceased since the demise of the Control Boards.

Supply of livestock products

The supply response of South African producers depends on factors such as trends in imports and exports, real producer prices, the cost of animal feeds, etc. However, the critical factor is the feed conversion ratio, as supply can largely only be increased through more intensive feeding¹⁰. Imports of beef and mutton into SACU have declined from 14.5% of supply in 1970/71 to 6.5% in 2001/02, while imports of poultry meat have increased rapidly over the past decade, yet still constitute less than 5% of domestic consumption.

What has changed in South Africa is the rapid increase in imports of animal feeds, by some nine-fold since 1990/91, to R1,8bn in 2001/02, mostly for broiler production, although red meat production on feedlots has also increased in recent years.

The extent to which South African producers will respond to the projected increase in

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⁸ Nieuwoudt WL (1998). The Demand for Livestock Products in South Africa for 2000, 2010, and 2020: Part 1. *Agrekon*, 37(2): 30-141.

⁹ Nieuwoudt WL (2002). The expected consumption of protein feed in South Africa by 2020. *Agrekon* 41(1): 1-23

¹⁰ Nieuwoudt WL (1998). Ibid

demand for livestock products depends on a number of factors, the first of which is the quantity of effectively available rangeland¹¹. This is affected, among others, by the impact of stock theft. For example, the Highveld magisterial districts of Ermelo, Standerton and Bethal, with their relatively high carrying capacity have experienced a decline in sheep numbers of up to 50%. The same trend is evident in other parts of South Africa. Without efficient policing to encourage livestock farming it can be expected that the meat and fibre contribution from rangelands will drop.

An important characteristic within South Africa is the distribution of the supply of animals and meat compared to the location of the demand. Regional production in Mpumalanga, Free State, Limpopo, and North West is about 95% feedlot driven and produces the bulk of the meat. In other provinces, without grain production, the structure of production is quite different. There, the commercial farmers tend to produce weaners for export to the provinces with the feedlots, relying on communal farmers to provide the older beef.

An assessment of the potential benefits

The extent to which commercial livestock farmers in the rangeland areas are able to respond positively to the increased demand will determine the benefit that they receive. This is not the only benefit that will accrue to the economy, as their increased income gets translated into more employment and higher wages, they purchase more goods and services in expanding production, and the greater output is processed. While extensive livestock farming does not use much labour, this benefit is likely to be small, although the multiplier effect of their purchases of inputs and further processing can be considerable.

In the South African circumstances, the extent to which black farmers could benefit from these projected increases in demand for livestock products is also an important policy issue. Black farmers, who farm on less than 15% of the agricultural land in South Africa, own approximately one third of the cattle herd (their ownership of sheep and goats, pigs, and poultry is less well recorded). Thus, they can potentially benefit from the livestock revolution. However, the extent to which they will actually benefit depends on a number of factors:

- The largest increase in demand for livestock and livestock products in South Africa (and in domestic supply) has been for poultry meat. This sector is dominated by a small number of large corporate producers, so that no farmers obtain any real direct benefit in the absence of targeted programmes to support smaller scale operators. The animal feed production sector is also concentrated in the hands of a few firms, so that there are also not many opportunities for small-scale operators.
- The productivity of cattle herds owned by black farmers is lower than the national average herd productivity when measured in commercial use. This is due to a number of reasons, starting with the legacy of colonialism and apartheid, which

¹¹ Hoffman T & Ashwell A (2001). *Land degradation in South Africa*. University of Cape Town Press, Cape Town.

- aimed to suppress competition from black farmers. Secondly, black farmers often keep cattle for reasons that are not conventionally included in the calculation of commercial returns. These include draught power, manure supply, a store of wealth, etc¹².
- While black farmers own a third of the total cattle herd in South Africa, ownership is highly skewed within this group. In many parts of the country, especially in the former homeland areas, owners of large herds are connected to, or part of, traditional authorities, which is also the case in other parts of Southern Africa. In Botswana, for example, large parts of the commons have been fenced in a process that denies access to land to the poorer owners of small cattle herds, and the even poorer owners of small stock¹³, and has arguably reduced environmental and social resilience to natural environmental variability through its adverse effects on livelihood coping strategies of the poor¹⁴ resulting especially from the displacement of people from ranches set up under the Tribal Grazing Lands Policy¹⁵. The most vulnerable groups in Botswana have been most deprived ¹⁶. However, there is also evidence that access to grazing in the communal areas provides a safety net for the urban poor in the country ¹⁷.

Nevertheless, there is a growing group of 'emerging commercial' black livestock farmers in South Africa who should be able to benefit from these new opportunities.

¹² See Cousins B (1999). Invisible capital: the contribution of communal rangelands to rural livelihoods in South Africa. *Development Southern Africa* 16(2):299-318

¹³ See for example Perkins J S (1996). Botswana: fencing out the equity issue. Cattle posts and cattle ranching in the Kalahari Desert, 1996, *Journal of Arid Environments*, 33(4): 503-517. *and* Clayton A & Woodhouse P (2000). Modernizing communal lands: evolving resource use in the Shoshong Hills, Botswana. In: Woodhouse P, Bernstein H & Hulme, D African enclosures? *The social dynamics of wetlands in drylands*, Oxford, James Currey: 119-154

Thomas DSG, Sporton D & Perkins J (2000). The environmental impact of livestock ranches in the Kalahari, Botswana: natural resource use, ecological change and human response in a dynamic dryland system. *Land Degradation & Development* 11(4): 327-341

¹⁵ Sporton D, Thomas DSG & Morrison J (1999). Outcomes of social and environmental change in the Kalahari of Botswana: the role of migration. Journal of Southern African Studies 25(3): 441-459

¹⁶ Good K 1999 The state and extreme poverty in Botswana: the San and destitutes. *Journal of Modern African Studies 37* (2): 185-205

¹⁷ Kruger, F (1998). Taking advantage of rural assets as a coping strategy for the urban poor: the case of rural-urban interrelations in Botswana. *Environment and Urbanization*. 10(1): 119-134

Current structure of the beef industry in South Africa

In order to get a sense of the role being played by the HDF it is important to situate them within the overall beef industry. The following analysis describes the key players in the beef industry value chain, and identifies the markets that they serve. In order to provide a clear understanding of the firm level linkages and their relations, we have sketched the different relationships into a subsector map, which is on the following page. We will review the different functions in value chain and look at the different participants in those functions, before describing the different channels by which product flows through from input supply to the final consumers.

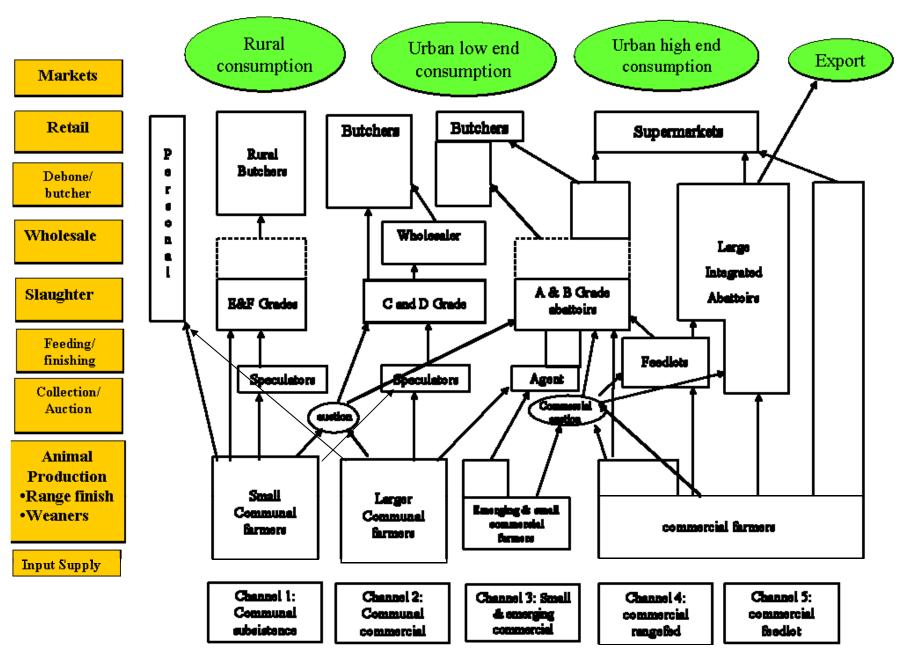
The value chain and the map

The beef value chain in South Africa begins with input supply and works its way through animal production (which includes both weaners and fully grown cattle), the sale of the cattle (either direct or via auction) through to the feedlots and finishers, up to slaughter, carcass/meat wholesale butchers, retail, and consumption. The product flows through different channels from production to consumption depending on the particular functions that each of the actors plays, the technologies that they use and their relationships with one another. The discussion below will elaborate more on the characteristics of different actors per function, categorizing them into different typologies that will present some indication of the functioning of the industry, as well as providing some indicators. The description that follows is for the industry as a whole, but is not representative of the Eastern Cape. However, it is necessary to understand the dynamic in the country as a whole, in order to understand the prospects for HDF in the Eastern Cape.

Functions and participants

Livestock production

Livestock production is carried out by a wide range of different participants. They can be divided between four to five different kinds of producers, using different types of technology and with different expectations.



Small communal herders. The largest number of cattle herders is comprised of small HDF who live in the communal areas. These herders generally have up to 10 to 15 cattle (with as few as 2 and as many as 25) which are being kept in communal pasture. The animals are kept for a variety of reasons, partially as appreciating assets that can be liquidated in case of need, partly for their manure, partly for their milk, partly as draft animals, and partly for customary purposes. The small communal herders do not place an emphasis on raising animals for sale, but tend to sell animals when they need funds for a specific purpose, and they will sell the older animals (three plus years old). In addition to being available for sale when needed, these animals are also reproducing, so are an appreciating asset. It is important to note that these producers are not the poorest of the poor residing in the communal areas. Poorer households tend to keep small stock and poultry as ownership of cattle is reserved for the relatively wealthier community members¹⁸.

Medium to large communal herders. These herders generally larger in size, usually with more than 25 head of cattle. A portion of their herd will play the same roles as for the small communal herders (manure, draft animals, milk, and customary), but they are now able to bulk up their herd size to the point where they could take advantage of commercial selling opportunities.

Emergent and small white producers. The emergent historically disadvantaged producers have their own farms and are usually raising between 50 and 200 head of cattle, though sometimes more. These farmers behave just the same as smaller white commercial farmers and might not be disaggregated from them. Some of them are raising range fed animals for sale straight through to the auctions, while those in the grain producing areas are most often producing weaners, that are then sold to the feedlots for fattening and finishing. RPO does not consider someone as a commercial farmer if he has less than 100 head of cattle,

Larger commercial farmers. The larger commercial farmers will sometimes raise rangefed (veldt fed) cattle through to when they are ready for sale for slaughter, but are increasingly shifting over to the production of weaners for sale into the feedlot industry.

Weaner production has economic advantages for the farmer because the animals are turned over faster, eat less (so cost less) as they are still getting milk from their mothers, and the cows remain productive for a number of years, reducing lost time for production. With the rise of the feedlot industry, which now provides between 70 and 80 percent of formally slaughtered cattle, demand for weaners has been increasing. In fact the price per kg of weaner is greater than the price per kg for finished cattle. The farmers raising weaners specialize in their production up to the age of about 8-10 months by which time they have reached 220-240 kg and will then sell the weaners through to the feedlots either via auction (about 20 - 25 percent) or direct contract sale. This allows the cows to produce about one calf per annum. Off-take from a weaner farm will be over 30 percent per annum.

¹⁸ It must be noted that larger farmers also tended to hold larger number of all stock types.

The range fed cattle farmers have a lower annual off take than the weaner to feedlot farmers, as they will grow their cattle to two to three years before they will sell them. There are many range fed farmers who will also provide supplemental feeding to their cattle during the lean months, so there is still an outlay of cash for them to raise the cattle.

The commercial farmers will have up to several thousand cattle (RPO's largest member has 5,000 cattle), but the average is about 300 head of cattle. The largest farmers never sell through the auction, preferring to sell directly to feedlot and/or slaughterhouses. While there are some auctions for weaners, they are increasingly passing directly to feedlots via contract, especially for the larger farmers.

The economics of cattle production are shifting, as will be discussed further below. As a result, there has actually been a substantial exit from the industry by many of the larger commercial farmers dealing with range fed animals in the more isolated areas, farther away from the abattoirs and the markets. Part of this seems to be occurring because the value of the land that comprise the farms/ranches has appreciated to the point where it makes more sense to sell the land than to try to farm it. Wealthy urban residents (primarily professionals such as doctors, lawyers, dentists, etc) are increasingly seeking large farms to create game farms either as their country estates or to turn them into wildlife parks for people to visit. These new owners are not focused on the commercial production of game animals, per se, but on the development of the land for alternative uses, using game animal production as a business pretext.

Sales mechanisms

There are four principal sales mechanisms between farmers and their buyers (feedlots or slaughter houses) – auctions, direct contract sale, sale to speculators/agents and direct sale to private households.

Direct contract sale. As the level of integration in the industry increases, the prevalence of direct contract sales between weaner producers and the feedlots is increasing. Prices are fixed in advance and the farmers are able to better plan the economics of their production. The contract prices are not necessarily public knowledge, but they are often better for the farmer and the abattoir, since there is no middleman involved. A minimum level of production is necessary to make direct contract sales viable, as at least enough animals to fill one full truck need to be ready at the same time.

Auctions. The auction industry, which used to dominate, is decreasing as the level of integration in the industry increases. While the feedlots used to support the auction industry, today only 20 percent of the animals entering the slaughterhouses go through the auction. The rest go through direct sale. The auctions are still popular in the areas with lower levels of direct sales (outside of the grain producing areas). Historically, there have been about seven large auction houses, though recently one of the largest, Stockowners, has closed. Auctions will handle either weaners or older cattle, and are effective mechanisms for setting transparent prices in the rural areas, particularly for

smaller cattle herders who do not have good price information. Occasionally, the auctioneers will also serve as buyers, buying animals on their own account.

Auctions tend to occur primarily in the commercial farm areas, where there is a sufficient off take of cattle available, so that the auction can handle more than 100 cattle at a time. Auctions also include other animals (goats, sheep, pigs). However, given the low off-take in the rural areas, sales levels in the communal areas, it is difficult to make it worthwhile for buyers and sellers to come together.

Auctions will normally take place once a month in the commercial farm areas, though occasionally more often if there is demand for the auction (i.e. farmers having a supply of animals). In the communal areas, if auctions take place, they will often happen once or twice a year, at times of peak financial need (just before Christmas or when school fees are due).

There is a handful (six or seven) of auction houses that manage this process, specialized by region. As the dynamics of the industry are changing, so is the business for the auction houses and they are adapting, integrating into other functions in the sector.

Speculators/agents. The third main form of sale is to speculators or agents from the abattoirs. Some speculators are purely independent, while others work in conjunction with abattoirs, but their modus operandi is quite similar – both get to keep the difference between the sales price and the purchase price. While a speculator will usually buy for his own account, he is sometimes tasked with purchasing for specific individuals who need a cow for a specific purpose. Abattoirs will tell their agents what price they will pay, then leave the agents to get the best price they can. This effectively makes them speculators as well, as the agents have little incentive to develop transparent pricing relations with the farmers to stimulate their participation in the market.

Speculators are good at buying one or two cows at a time, which makes them a very useful conduit as brokers in the rural areas when communal farmers need to sell a cow or an ox. The speculator knows who the ultimate buyers are and will sell immediately, or will sometimes hold the animals for a short period. Speculators have no interest in transparent sharing of information with the sellers.

Direct Sale to Private Households. Informal direct sales to private households remains an important marketing channel. Typically private households purchase cattle for funeral purposes, with male oxen being required for a male funeral and adult cows for a female funeral. The price paid is always a subject of negotiation between buyer and sellers. It has been contended that increasing incidence of HIV/Aids has lead to a corresponding growth in informal local market demand for cattle for ceremonial slaughter purposes.

Feedlots and finishing

Feedlots drive the South African cattle industry. Overall in South Africa, the feedlot industry currently handles about 400-420,000 cattle at any one time. With a turnover of 3.6 times during the course of the year, this means that about 1.44 million cattle work

their way through the feedlots into the formal slaughter. With 1.9 million total cows being formally slaughtered in abattoirs in the country, this represents about 75 percent.

Feedlots are essentially factories for turning out meat in a very cost effective manner. Purchasing a weaner at 220 kgs (live weight), the feedlots seek to double the mass of the animal in 100-110 days to bring it up to a 220 kg carcass. Because the animals are grain fed, and grain is comparatively scarce (i.e. expensive) in South Africa, it is essential that the South African feedlots achieve maximum efficiency in transforming grain into meat. South Africa seeks to transform a weaner into a slaughterable animal with an efficiency ratio of 12 kg of grain to one kg of meat. The SA Feedlot Association claims that the average American cow takes 24 kg of grain to add a kg of meat, and two years and three months to get it to the slaughter house. Meanwhile, the average South African cow makes it in 12-14 months. As a result of this, SA meat is a lot leaner than American meat (12% fat compared to 32% in the US) and a lot younger and more tender¹⁹.

The two mantras of the feedlot industry are: "take the cow to the grain" and "you can't feed a wrong animal right". This dictates the location of the feedlots in the grain producing areas; as it is cheaper to move one kg of cow to the grain than it is to move 12 kgs of grain to the cow. The weaners are then brought in to the feedlots. The second quote highlights the intense management and monitoring that is required, because if an animal is not putting on weight properly (converting feed to meat) then they are culled. When dealing with 20,000 head of cattle, every extra day of feeding to get them to the desired weight is very expensive.

The feedlot industry is now quite a mature industry in South Africa. Where grain fed cattle used to command a 21 percent premium over range fed cattle 25 years ago, this has come down to just three percent today. Young (up to 12 to 14 months) grain fed cattle provide the Grade A meat, while the older rangefed cattle provide grade AB meat. The pressure to maximize efficiency of grain transformation into meat has made this a very scientific industry and feedlots that do not know what they are doing will lose money quite badly. An efficiently run feedlot monitors the weight of its animals carefully. If a cow is not putting on two kgs a day (gross weight), then it must be culled from the feeding system as it will cost more to fatten than it will get at the abattoir.

There are about 60 commercial feedlots in South Africa, 50 are members of SAFA, plus another 10 that are independent. The average SAFA feedlot handles about 8,000 cattle at a time, but the range is between 4,000 head and 85,000 head. Most of the cattle, 75 percent, are in integrated lots where the feedlot is tied in directly to the abattoir or to the farm. Only the smallest feedlots are not integrated (under 5,000 head).

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¹⁹ Personal communication from Dave Ford, SAFA.

Slaughtering

Most slaughtering is done through the abattoirs. Ten years ago, under the single marketing channel, there were just a handful of abattoirs. Today, there are six categories of abattoirs A through F:

- "A" level abattoirs can handle up to 1000 animals a day, have a state vet and the meat is graded on sight. There are 40 class "A" abattoirs;
- "B" level abattoirs have a capacity of 500 animals per day, and there are 38 of them;
- There are 56 "C" level abattoirs nationwide,
- There are 76 "D" level abattoirs,
- The 289 class E abattoirs can do up to 8 head of cattle per day; and
- The 66 class F abattoirs do 1-2 head per day.

The class A and B abattoirs account for 80 percent of all slaughtered cattle in the country. The larger abattoirs are increasingly integrating forward and backward into the value chain – feedlots and deboning/butchering. Some of the larger abattoirs still slaughter a portion of their production on contract for other companies, but most of them are now taking ownership of the animals to control their through-put.

The largest abattoirs need a guaranteed through put of cattle (up to 1000 per day) to justify their investment, so are integrating backwards into the value chain to the feedlots. The economics of slaughtering, are quite tight and there is very little margin for error. Therefore, by integrating backwards to supply, the abattoirs can control the prices and negotiate best prices with the weaner producers to get direct delivery to their feedlots.

As transport is a big factor in the costs for Abattoirs that are purchasing their own animals, proximity to the finished animal is also important. With a feedlot next door, the transport cost for the weaners to get them to the feed lot is low. When purchasing the range fed animals, they must limit the area that they purchase from because it will skew their cost structure with respect to transport.

At the same time, they have realized that they can capture more value added within their operations and create greater demand for their product if they also integrate forward into deboning and butchering. This allows them to sell a higher value product into the market. This requires different facilities and equipment as well as greater expertise in butchering and marketing the product. The forward integration requires greater quality control as they are now producing finished product that they are shipping in boxes and primal cuts instead of carcasses. According to one abattoir, net profit off of the sale of a carcass is usually about 1 percent and off of boxed meat it is 3-4 percent, so there is a strong incentive for the abattoirs to increase their production of boxed meat.

However, it also means that they must have much more efficient marketing people. They can no longer simply wait for the client to come to them, they have to seek them out and get their contracts. As they will be selling into the larger chain stores, they will have much more rigorous quality control standards to meet, including implementing Hazard

Analysis and Critical Control Points (HACCP) programmes. However, once they do meet these standards, they will then have greater control over their production and pricing, selling primarily finished product.

We do not have good information on the operations of the smaller abattoirs - level C down. However, they are able to compete primarily due to proximity to their clients – buying animals from the local producers, and selling into the local market. These abattoirs will often be next to the larger towns in the cattle producing areas, where they have a ready market for their beef. In addition, as they have fewer facilities, they have lower overheads and are able to compete on price for fresh meat.

Increasingly, the profitability for the abattoir is coming off of the "5th quarter" of the cow which is the offal and the hide. This is also promoting the feedlot animals, as the greater their ability to get quality hides, the more their profitability. Hides from feedlot cattle are better than from range fed cattle.

Inspection services within the abattoirs are also important. The largest abattoirs have inspectors provided by SAMIC (SAMIC currently provides vets and inspectors for 42 abattoirs), but the smaller ones do not, which hurts their ability to track diseases. Measles is the most common disease being tracked, and the level of infection in an abattoir can affect its profitability. But it can only be tracked if there are vets and inspectors. SAMIC has a shortage of vets and meat inspectors relative to the demand.

As an example of the health impact, 11 percent of the animals slaughtered in the East London abattoir were infected with measles in 2003. Once identified, it can go for meat processing or be treated by freezing, but this drops the price of the meat by 15-20 percent. In contrast, the smaller abattoirs without inspectors tend to have much lower rates of identified measles infected meat, because they do not identify it. This helps the smaller abattoirs compete with the large ones, but also means that the quality of food safety is much lower.

Wholesale

This function used to be done by auction, where the owner of the carcass (the farmer) sold the meat wholesellers and butchers who would then get it out to the retail butchers. This function has now been largely integrated into the abattoirs, especially the A and B level. There are still some wholesalers who purchase several carcasses from the abattoirs and then sell them to butchers, but this is primarily from the C and D grade abattoirs and in small quantities.

Deboning/butchering

The deboning and butchering used to be done entirely by the butchers and the retail outlets. However, this is splitting into several different levels now. Increasingly, the larger abattoirs are adding deboning and butchering into their repertoire of activities, increasing the value added at the abattoir and the sales price that they can get. This allows them to sell finished product into the supermarkets, which are often just as happy to not have to fill this function, and directly to the small retail outlets.

Most of the larger supermarkets have included a butcher in their meat department to make sure that they know the quality of the product that they are selling. Most still have a butcher – from the family level supermarkets (the smallest of the Pick'n Pay and Spar stores) up to the biggest stores. But they are buying more of their meat pre-packed from the supplier. Some stores, such as Woolworths, purchase all of their meat directly from their suppliers butchered to order and pre-packed.

Butchers still do quite a bit of the deboning and cutting of meat, taking full carcasses and cutting them down to size for retail sale.

Retail

The retail function, where product is sold directly to the end user, is split between a variety of different actors. In the cities, this is increasingly being handled by supermarkets that are mostly selling finished, packaged product. Supermarkets now handle about 22-25% of all retail sales, and account for most of the high end sales. Butchers still provide quite a bit of the retail service – an estimated 60% of retail trade takes place through this channel with the remainder being supplied by informal retail traders.

Channels

There are five main channels through which product flows from production through to the markets. This is a great contrast to the old single channel that used to exist. To give a sense of the ways that meat marketing and the control of the product has changed, we will first describe the "old" way. Cattle owners used to raise their cattle and bring them to the slaughter house where they were slaughtered as a service (charged a fee). The owners of the carcasses then sold them at auction to wholesalers who would deliver them to the butchers and supermarkets for butchering and retail sale. In this value chain, the cattle owners controlled the product through to the sale of the carcass to the butcher and the abattoirs were simply service providers. With the floor price system in place by the government, the farmers were in the position to control the flow of product. This has changed radically.

At one extreme, there is the very disaggregated communal small holder channel and at the other extreme is the vertically integrated farmer who does everything from birthing the calves to butchering and packaging the cattle.

Channel 1 – the communal farmer

The small communal farmer channel is the most disaggregated channel in the map. Here, small farmers occasionally sell cattle when they need some funds. There are a great number of cattle herders, but the volume of formal commercial trade is quite small.

Most of the cattle are either purchased via direct sale to the E and F grade abattoirs or end user or to speculators. There are no good statistics on this total nationwide. But it probably exceeds 90,000 head of cattle per annum.

In this channel, the farmer is a price taker. While he may follow the auctions to see what prices are being offered, he has little opportunity to discuss prices with the buyers. He can negotiate, but in the end, it is the speculator who makes the decision.

Channel 2 – the larger communal farmer

The larger communal farmer channel is one that is on the way to towards a more commercial approach, except that the farmers still keep their cattle with the communal herd. This has many negative impacts on the quality of their cattle as they cannot control breeding and feeding. The larger communal farmer is more likely to take his cattle to the auction, if he has access, but still relies on direct sales to private households as well as the speculators and agents to purchase his cattle on an ad hoc basis. The auctions are held infrequently in the communal areas, so the larger communal farmers might take their cattle into a commercial farming area for sale at the auction.

The larger communal farmer is showing more tendencies towards treating his animals like a commercial business. They would like to get their own land, but do not fully understand the economics behind commercial cattle farming. Interestingly enough, the field surveys in the Eastern Cape, demonstrated that the larger communal farmers earn less per cow than the smaller communal farmers.

As with the very small farmers, the larger communal farmer is isolated from the market and from market signals. He is largely at the mercy of the buyer to set his prices and to communicate the needs of the market. As he has more cattle to sell on an annual basis, he does get visited more often by the agents.

Cattle in channel two are older, as with channel one, and tend to flow through to the medium abattoirs close to production zones, which are at the C and D grade, though occasionally they will be purchased for the A and B grade abattoirs in the more urban centers. The end market for most of their meet is still largely rural and small town.

Channel 3 – the small and emerging commercial farmers

The emerging commercial and small white commercial farmers behave in much the same way. Since they are located in the commercial farming areas, they have greater access to the auctions where they feel that they can get a transparent price. Generally they do not have large numbers of cattle to sell per annum, They are still largely dependent on the auction for the sale of their animals, but because they have more animals they might also have some closer relations with the larger abattoirs, even though they generally do not have enough animals for sale at any point in time to warrant a truck load.

The A and B grade abattoirs become more prominent in this channel and are now driving the purchase of the animals as they increasingly need through put. They have a more aggressive set of agents and buyers who are purchasing at auction and are linking in more closely to the markets.

Some of these larger abattoirs, in the non grain production areas have added a small feedlot to their services (as in Port Elizabeth), but it is used more for finishing the animals to ready them for slaughter than it is to serve as a true feedlot.

Some of the emerging farmers and small commercial farmers are selling their cattle as weaners into the feedlot system.

Channel 4 - Commercial range fed

The commercial range fed cattle are found increasingly in the areas without good grain production, but where there is extensive land. They hold the animals for 2-3 years to bring them to selling weight. They are dealing either through the auction or with direct sales to the abattoirs.

The advantage for the range fed cattle farmers is that they are not dependent on the world price for maize, which is the main force driving the feedlot industry. Depending on their costs of production the rangefed cattle can compete quite effectively if the world price of maize goes up or the rand depreciates in value, causing the maize to cost more in Rand terms.

The cost of getting the finished animal to the abattoir is important so the commercial range fed cattle farmers are generally selling to abattoirs in their regions. Larger abattoirs that are tracking their costs are buying from within a 150 - 200 km radius of the abattoir, as they try to keep the transport cost below R100 per animal (cost per animal transported is about 50 cents/km). In addition, the abattoirs being fed by many of the range fed areas are often smaller, and will be more likely to feel competition from the big abattoirs in the near future. With the changing purchasing habits of South Africans are changing, going increasingly to supermarkets when they are convenient. As the supermarkets (their smaller versions) get into the smaller towns in the more rural areas, the supermarket chains may eventually squeeze the market for locally produced beef.

Channel 5 – Commercial Feedlot

The commercial feedlot channel is now the dominant channel in the industry. It accounts for about 80 percent of slaughtered animals, taking them through from the weaner stage, through the feedlots to the supermarkets and butchers. The production is carried out across the country, but the cost of transporting the weaners to the feedlots is taken into account in the sale price to the farmer. As noted above, this industry is becoming increasingly integrated, with the abattoirs, which have the largest fixed investment, and the supermarkets driving the industry.

Industry dynamics and driving forces

It is clear from the discussion above that this is a dynamic industry. There has been a major shift in the way that business is done since the early 1990's. The forces driving the industry are now market driven as opposed to supply driven, with the supermarkets increasingly driving the market. Cost has become a major factor. It is becoming an increasingly efficient production industry.

In the highly commercial channels which account for the vast majority of commercialized production, Channel four, the range fed cattle, seems to be gradually losing out to Channel five, the feedlot channel which are providing Grade "A" beef to feed the major urban areas (Johannesburg, Pretoria, Durban, Cape Town).

Meanwhile, the emerging commercial farmers and small white commercial farmers are fighting the economics of the industry to succeed in channel three. They must become more efficient and scientific producers to be able to compete within the prices that are being offered by the abattoirs, driven by the markets.

Channel one will remain fairly static. As long as there are cattle being kept on the communal lands there will always be a need to sell off animals and a business to supply cattle into the smaller abattoirs.

Channel two is on the cusp between communal and commercial. While they are still bound by communal production practices, their intent is to become commercial It is possible that many farmers in Channel two can move over to Channel three over time. However, if production patterns and land ownership do not change, they will eventually just fall back into Channel one. This will be a much longer process, but if the land is available, there certainly is demand.

Commercial driving forces

As discussed above, there have been a series of major changes in the industry:

- Supermarkets are starting to drive the market;
- There is increasing vertical integration in the sector: feedlots, abattoirs, deboning/packaging;
- There is increasing demand for farms by communal farmers near communal areas; and
- While the auction lays the foundation for pricing, particularly in the rural areas, it is decreasing in importance for most of the commercial farmers.

The forces driving the industry are increasingly based in production and transport economics and the quality of the beef. Proximity of the abattoir to the live animals is one of the most important factors. Animals moving from a feedlot next to the abattoir, cost much less to transport (as they were moved when they were smaller as weaners), than 2-3 year old animals coming from the farms or auctions that are up to 200 km away. In addition it is much cheaper to move the end product (meat) from the abattoirs to the

markets than it is to move the live animals, so there is a gradual shifting of the production and slaughtering process to the areas closest to the grain.

The feedlot industry is growing, now at 80% of total through-put. This is reducing need for large range fed farms and there is demand from urban investors buying livestock farms (former range fed). The economics behind the escalating value of the land as a game ranch compared to the value from producing livestock is also changing the ownership and user patterns for land.

At the same time there is a shortage of land for emerging communal farmers. They do not have access to the land that they need to produce the quantity and quality of animals that are needed to enter the commercial marketing channels. Land tenure issues in the communal lands make production very difficult.

Regulatory issues/forces driving the industry

Import duties. One of the key driving forces for the industry is the protection provided by the 40 percent import duty for beef. Without this protection, the overall South African beef industry would be facing serious competition from Brazil, Argentina, and Uruguay.

Value Added Tax. One of the frequently cited advantages that is keeping the informal slaughter industry alive is that they do not charge VAT, which the larger abattoirs and formal commercial channels do. It is not possible to measure the real impact of this.

Animal theft. One of the main challenges facing livestock producers in South Africa has been stock theft. This problem is much more serious for sheep and goats than it is for cattle, but there is still concern for cattle owners and this is cited as one of the reasons that some commercial farmers are exiting the industry. With the large role being played by speculators in the informal trade (channels one – three), there is a ready opportunity for speculators to move stolen animals through the marketing channels.

The NDA has promoted the Animal Improvement Act and the Animal Identification Act to help address this problem. Under the Animal ID act, young animals will be marked by tattoo and older animals are to be banded, so that they do not damage the value of the hide. Under this new act, speculators will have only 14 days to sell a cow from time of purchase and must have a deed of sale.

Communal Land tenure

In the communal areas, cattle are grazed on unfenced grazing land and such a system is characterised by overgrazing and lowed technical efficiency measures in terms of calving rates, mortality rates etc. This poor performance is not only ascribed to nutritional stress but also due to poor animal health control moreover both these factors are exacerbated by the fact that cattle numbers are not adjusted to take into account these environmental issues.

The beef industry in the Eastern Cape

The purpose of this review is to identify the potential for constructive assistance with respect to the black farmers in the Eastern Cape. Table 1 shows the size of the cattle herd in the Eastern Cape relative to the whole of South Africa.

Table 2: The Eastern Cape cattle herd ('000 head)

	Eastern Cape	South Africa	%
1998	2937	13772	21.33
1999	2951	13580	21.73
2000	2975	13461	22.10
2001	3039	13506	22.50
2002	3125	13722	22.77
2003	3097	13515	22.92

These data show that the size of the Eastern Cape herd has increased steadily since 1998, a period in which the national herd was declining. As a result, the Eastern Cape herd increased from 21.33% of the national herd to 22.92% over these 6 years. There are more cattle in this province than any other in the country. More than 1.9 million²⁰ of the cattle in the Eastern Cape (62%) are owned by about 150,000 families living in communal areas and keep their cattle on communal lands²¹. It is very likely that this increase has most likely taken place on the communal lands, not in the farms in the commercial areas.

The average herd size of more than 10 animals per household is misleading, as 52 percent of the cattle owners, have herds of five or less, so there are quite a few HDF with considerably more cattle. There are 4640 commercial livestock farmers in the Province, of which some 200 are emergent producers raising cattle on their own land (NERPO). NDA's official figures put the commercial herd at 720,000 head of cattle, which is substantially below the other figures. This implies that the average white commercial farmer has about 200-300 head of cattle.

Using approximate figures, there are probably about 200-250,000 cattle marketed annually from the commercial farms and fewer than 100,000 marketed from the communal lands. With a low off take from the communal lands, the pressure from the cattle population will be increasing. Interviews with farmers in the communal areas showed that many had added more animals to their herd and that there was nothing to keep them from putting them onto the communal lands.

²⁰ Directorate of Veterinary Health, Dept. Of Agriculture, 2003

²¹ The results of the survey conducted as part of this research estimated the number of communal farmers to be much lower in the region of 90,000.

The marketing channels in the Eastern Cape

Referring back the subsector map, we see that the vast majority of the trade in the Eastern Cape is taking place through channels one through three. There is no vertically integrated production or feedlot production going on (channel five), but there is quite a bit of commercial range fed going through Channel four and small and emerging commercial going through Channel 3. Therefore, even though the Eastern Cape has the largest number of cattle in the country, it only plays a limited role in the most dynamic segment of the industry. Its participation is limited to the production of weaners (estimates are that 90 percent of commercial farmers are doing weaners²²) into the feedlots. The formal "domestic market" in the Eastern Cape is probably about 100-150,000 head of cattle per year going through the registered abattoirs and the rest through of the abattoirs.

There are two main abattoirs in the Eastern Cape that seem to be gaining ascendancy; the East London Abattoir and the Eastern Province Livestock Abattoir in Port Elizabeth. The East London Abattoir is owned by the partners in Elliot Brothers, the auctioneering house, so have integrated back vertically into the purchasing of cattle to ensure that they get a good supply. They have also integrated forward towards the market by adding a deboning and butchery functions into their abattoir. The Eastern Province Livestock Abattoir has the only feedlot in the province, where it handles about 200 head of cattle at a time, primarily for finishing purposes.²⁴

East London Abattoir is now shifting its production from carcasses to pre-packed meat which they are selling in Durban and Johannesburg. They have important contracts with Metro Cash and Carry and Spar and expect that by the end of 2004 the will be doing almost all pre-packed meats. In order to meet the range of demand, they have to import about three truck loads of cattle per week (150 head of cattle) from feedlots in the Free State. They get the rest of their supply (about 850 head per week) from the local market, both emergent farmers as well as commercial farmers.

Survey results on black cattle herders in the Eastern cape.

ComMark is most interested in the increasing the economic benefits to HDF from cattle ownership and sale. The research team began with the knowledge that most communal farmers keep cattle for a variety of reasons. According to most reports, the most important reasons are for savings, ploughing, milk production, and customary purposes. As a source of savings, the animals are sold occasionally depending on the household's financial needs, but not as a source of steady financial income.

If there is to be a steady growth in the income from the cattle industry by HDF, then there must be some changes to the current practices and there needs to be a strong financial incentive for them to participate. If they do not react to a financial incentive, then there is

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²² Personal communication from Eddie Luppnow, Elliot Brothers.

²³ There are two A level abattoirs, two B level, three C level, eight D level and 68 E level abattoirs registered in the Eastern Cape.

Animals are fed and given supplements for a few weeks to put another 50 kg or so of meat on them before slaughter.

little likelihood that they will be enticed into the commercial channels. Therefore, the research team focused on those herders with more than five head of cattle to determine the characteristics of the farmers in communal areas, and to be able to compare them to emergent cattle farmers. The analysis of behaviour and herd composition patterns by farmers was categorized between farmers with herds of 5-15 cattle, herds of 16-25, and more than 25 head of cattle and then compared them to the emergent commercial farmers in the nearby regions.

During the survey, 114 farmers were interviewed, with the following characteristics.

	Communal area cattle farmers 5-15 head	Communal area cattle farmers 16-25 head	Communal area cattle farmers >25 head	Communal area cattle farmers TOTAL	Emergent cattle producers TOTAL
Sample size (No.)	28	23	33	84	30
Weighting (based on NERPO member profile)	x2.50	x0.42	x0.12		
Weighted sample %	83.8	11.5	4.7	100.0	
Male Female	96.4 3.6	95.7 4.3	87.9 12.1	95.5 4.5	93.3 3.3
<35 years 35-50 years >50 years	7.1 35.7 57.1	4.3 34.8 56.5	3.0 24.2 72.7	6.6 34.9 57.5	0.0 40.7 56.7
Av. cattle herd size	10.1	21.1	39.3	12.5	127.6
Cattle herd size range				5-78	16-659
Av. no. of sheep held Av. no. of goats held	30.1 6.5	47.0 7.3	57.4 17.5	33.2 7.1	75.8 44.0

Table 3: Weighted sample details, December 2003

From this sample, the characteristics of the off take by herd size are described in table 4, below. It is interesting to note from table 3, that among the larger communal farmers that there are more women and that they are older (72 percent over 50). In contrast only 56.7 percent of the emergent cattle producers were over 50. Assuming that half of the 90,000 communal farmers have five or more head of cattle, then there are approximately 4,150 large communal farmers with more than 25 head of cattle, which is a significant number.

Table 4: Characteristics of off-take from black cattle herders in the Eastern Cape.

	Communal area cattle farmers	Communal area cattle farmers	Communal Cattle farmers	Emergent cattle farmers
	5-15 head	16-25 head	>25 head	TOTAL
Bulls	0.25	0.22	0.3	1.63
Cows	0.11	0.39	0.36	3.77
Heifers	0.25	0.26	0.12	4.43
Young bulls/ tollies	0	0	0.03	6.17
Oxen	0.25	0.7	1.67	0.6
TOTAL	0.86	1.57	2.48	16.6
Off take (%)	8.5%	7.4%	6.3%	13%
Total sales value	1,806	4,000	6,503	35,270
Avg value/animal	2,100	2,548	2,622	2,125

The main findings from the analysis of the data collected are divided between general findings, marketing, household income, and herd performance.

General findings

- Communal herds are multi-purpose in nature, and not just held for selling purposes. There is also evidence that emergent producers also keep cattle to meet a number of different needs. This finding implies that it might be difficult for emergent farmers to increase their take-off rates and change herd composition.
- Communal area cattle are produced off veld, mainly under an apparent low cost system.
- Under communal land tenure systems, an individual farmer has difficulties in implementing efficient grazing management and bulling programmes by himself.
- Communal area herds perform better than expected (output is low but so is herd input). Emergent farmer performance is shown to be worse than communal area farmers.

The main general findings from the survey tend to reinforce the practicality of the communal production systems, which can be characterized as low input/low output, but also as low risk mechanism for producing an appreciating and useful asset. The animals provide a full set of services to their owners, from milk production, to ploughing, to customary uses and to asset accumulation. They highlight the near impossibility of a single farmer trying to develop a quality product under the communal system, as they cannot control the environment within which they are operating. In addition they show the difficulty that the emergent farmers face of changing mindsets to get the more

commercially oriented farmers to be able to produce to the level needed in the commercial farming sector, as even the emergent farmers are way below productive efficiency.

Table 5 highlights a couple of other sets of issues that separate out the emergent farmers from the communal farmers. The emergent farmers are much better able to manage their productive conditions (they think) but perceive the shortfall in, and need for, technical advice and better market and grading information. This indicates that they have moved from an initial set of basic production issues to market oriented challenges.

	Communal area cattle farmers 5-15 head	Communal area cattle farmers 16-25 head	Communal area cattle farmers >25 head	Communal area cattle farmers TOTAL	Emergent cattle producers TOTAL
Shortage of land (veld for grazing).	64.3	60.9	63.6	63.6	13.3
Cannot manage veld under communal tenure.	82.1	82.6	69.7	81.2	6.7
Access to capital (money to operate with).	78.6	65.2	69.7	76.3	66.7
Access to quality bulls/animals.	92.9	65.2	69.7	88.2	66.7
Access to transport.	46.4	39.1	24.2	44.3	10.0
Access training/advice.	78.6	69.6	81.8	77.3	76.7
Lack of grading information.	60.7	43.5	42.4	57.6	63.3
Lack of market information.	57.1	39.1	45.5	54.3	53.3
Other.	3.6	17.4	6.1	5.3	16.7

Table 5: Main constraints to production, from survey (%)

Marketing

- Half of communal area farmers owning 5 head or more had sold within the last year.
- Cattle are mainly sold to generate cash in accordance with household needs (not really as a planned production component)
- Most cattle are sold directly to a buyer, and only 21% farmers who sold cattle used the auction system.
- Most cattle sold are sold within and to the local community.
- Communal area farmers would prefer to sell through auctions (but invariably don't). Emergent farmers prefer the contract marketing method.
- Marketing and grading information, in addition to marketing training and advice are seen to be major constraints to increasing sales.

These findings highlight some of the differences between the emergent farmers and the communal farmers based on their needs and their differing relationships with other actors in the channels. Communal farmers sell cattle when they need cash, not as a regular

source of income. Interestingly, most cattle are sold within the community and not into the productive channels.

While emergent farmers prefer direct contract sales, because see the advantages over the auction and know that they can aspire to them, the communal farmers aspire to participating in the auction. This latter is most likely to stem from their current relationships with speculators and agents who, in their view, are not transparent and are perceived as trying to cheat them. But the communal farmers do not have ready access to the auctions. The communal farmers would have difficulty in participating in contract sales because, as individuals, they do not have the networks and the relations, not to mention the through-put.

The farmers' weaknesses in understanding some of the key elements involved in the commercial trading of animals also comes through. Most farmers do not understand the grading process against which their animals are purchased and do not have ready access to good market information on what the prices should be (hence the communal farmer's interest in auctions). In discussions with some farmer groups, they indicated they had never been to an auction in a commercial area and would love to see how it is done for the whites as well as for the blacks.

Contribution to household income

- More than half of communal area cattle farmers consider livestock sales to be a main source of household income.
- Income from selling cattle (i.e. sold into both formal and informal markets) only contributes about one third to the value of annual household income.

Sales of cattle are important for the household that own cattle. But the analysis from the survey also demonstrates that, particularly for the smaller farmers, livestock generate significant other value for the household. This is either through milk production, own meat consumption, transport, ploughing, manure production, etc. For farmers with more cattle, it is difficult to capture the full value of some of the peripheral uses²⁵. So if they are not efficiently used for commercial purposes, they become under performing assets.

Herd performance

• Indications are that efficiencies can be introduced by better herd profile balancing. Correct balance is particularly important when there is restricted production capacity.

This is a very important finding, but when mixed with the nature of the communal farms, is almost impossible to address. There have been many programmes tried by government and others that have not succeeded in addressing this issue.

²⁵ Household need for cattle as a source of milk consumption, transport, draught power and manure production is satisfied by a relatively small herd size.

Key production challenges for the communal and emerging cattle farmer

The general production conditions make it very difficult for the communal farmer to increase their production of animals for commercial purposes. Some of the conditions for communal cattle herders in the Eastern Cape are outlined below:

- Communal area farmers tend to be male, full-time and over 50 years old. The age factor and "traditional" approach to cattle production could mean a significant "resistance to change" factor that would have to be addressed. Many of these individuals are pensioners, so get their regular check in the mail do not need to develop their livestock business to generate a steady cash flow.
- Virtually all production is based on unfenced, uncontrolled veld grazing on lands under the communal tenure system. Such a production environment does not only make it difficult to improve grazing management, but also affects aspects such as calving programmes and bull management (anecdotal evidence received was that a bull is "everybody's bull"). Moreover, communal grazing (and restrictive capacity) means that it is difficult for any one individual farmer to bring about improvements by himself.
- Communal area cattle holdings reflect a different production system to commercial herds. Output is multi-purpose by nature and reflects a logical low-risk (low input/low output) approach.
- The efficiency of the system is perhaps far higher than might have been expected by industry observers. Research indicates that herd off-take actually exceeds 10.5% p.a. (and not the expected 2.5%-5.0% range) if one takes local area sales and home slaughter into account. Nevertheless factors such as small-sized production units, communal area grazing, bull management, and production capacity mitigate against expanded output for commercial purposes.
- Emergent farmers seem as if they are caught between two production systems and display disappointing efficiency levels.
- Expanded market off-take for commercial purposes would pre-suppose a need for changes to the production system. With emphasis on maintenance of animals rather than productivity of animals, animals tend to be "over kept" in terms of age. This does not seem to be a problem in terms of local market (informal market) requirements, but greater efforts would have to be made at the production end in terms of quality and quantity if commercial sales increases were to be contemplated. In short, a production system change has to take place, for the veld capacity is generally just not there for expansion under the current system.

The final bullet implies that if there is to be any market driven commercial uptake that can fit into the overall commercial marketing channels, the cattle herders will have to do it outside of the communal lands. However, there are a number of larger communal

farmers who are interested in doing this. But they are limited by availability of land and lack of technical know-how.

The 200 or so emergent commercial farmers in the Eastern Cape with their own farms demonstrate that they do not have very efficient cattle raising systems, even though they are targeting the commercial channels. Unless they get up to speed, they will also fall out of the market.

Key market challenges

As discussed above, the beef market has changed radically in South Africa following industry deregulation. From a fairly consistent historic figure of some 20% of slaughtered cattle being feedlot-finished, feedlots now account for 75-80% of slaughter stock finishing. The harsh reality is that communal area cattle (generally horned, non-castrated, older) are just not feedlot material. This decreases buyer interest, leading to further price softening.

Notwithstanding the above point, there is a market niche for "C Grade" cattle (see Table 6 below). The three East London abattoirs identified, slaughter 400 cattle units a day and would be keen to buy in at least 110 C Grade animals on a daily basis. Smaller abattoirs in Grahamestown and Umtata would also be interested (some of them try to source stock from outside of the Province, let alone from communal areas, even if its just to help them improve abattoir throughput). The East London abattoir is also prepared to slaughter and sell on behalf of the farmer – something that the communal area farmer has not taken up even though it would likely improve returns.

In addition, there appears to be a shortage of cattle in general to meet the demands of the small and large abattoirs in the region. The following data gives a preliminary indication of this likely demand, based on contacts made with a few appropriate abattoirs (there are nearly 100 registered abattoirs in the Eastern Cape and the abattoirs contacted and recorded here are not meant to necessarily be a random sample).

Table 6: Eastern Cape: Current and potential cattle demand by area and abattoir

Area	Abattoirs	Current Slaughter (cattle/ week)	Potential extra Grade C Demand (cattle/week)	Comments
Umtata	Umtata	40	45	Incl. 10 head slaughtered per week for funeral parlours; 10 head for butchers. Currently operating at 40 % capacity only.
	Total	175	45 (minimum)	Umtata currently supplied by EL, Queenstown and Kokstad
Grahamstown	G'town	0	0	Now an ostrich abattoir only
	Fish R.	5	0	Increasingly supplied by Vleismark in Queenstown.
	Bushman's R.	4	0	Was slaughtering 15/week (butcher driven) but experiencing heavy competition from Koelkor and Vleismark. Claims local commercial farmers (up to 30) are involved in illegal slaughter and supply.
	Cookhouse	120-150	40-50	Has buying agents in the field. Not interested in auctions – totally uneconomic.
	Total	129-159	40-50	
East London	East London	1000	250	Active buying programme in communal areas through organisation of 'sales days'.
	Claremont Farms	450	200	Aggressive buying teams
	Glen Victor	200 (50% Gd C)	100	Uses an agent system and also obtains cattle from Stocktheft Unit (TTO to discuss with SAP in East London).
	Total	2000	550 (minimum)	These top 3 abattoirs are locked in a struggle to obtain more stock to bring about economies of scale.
Port Elizabeth	EP Livestock	300	0	PE is not really a viable market for Grade C animals because East London has a transport advantage which translates back to a 60c./live kg. premium.
	Karoo- Ochse	400?	0	
	Total	Probably 1500+	Unknown	A no. of smaller abattoirs and particularly those that were butcher driven, have closed
TOTAL		Probably +- 4000	Probably at least 675	

Slaughter levels in the Eastern Cape would appear to be at least 208000 head of cattle per annum. It is difficult to establish what market share communal area farmers have in this market but it might be as low as 5% or some 10000 head per year.

The Eastern Cape potential market (based on unfulfilled demand for Grade C cattle) is at least 35000 head per year, but could be as high as some 45000 if one considers areas not covered by research such as Graaf-Reinett, Queenstown, Aliwal North and Middleburg. In addition, southern KwaZulu/Natal towns such as Kokstad, probably provide additional and accessible market opportunities for northern Eastern Cape communal area producers.

This potential demand for lower grade animals represents the equivalent of a 17% increase in all cattle slaughtered commercially in the Province. Conversely, it represents a new market opportunity to communal area farmers that is equivalent to some 40% of current sales (mainly informal market) or a four fold increase over apparent commercial sales levels.

East London undoubtedly represents the critical mass of Eastern Cape demand and potential demand for Grade C animals. Not only do East London abattoir prices translate back to a 60c. premium per live kg. compared to Port Elizabeth prices, but the city's location makes it relatively accessible to both supply and demand.

Auctions

Auctions are very difficult to organize in the communal areas. One of the key success factors behind a good auction is having predictable quantities of stock at sales to make potential buyers comfortable in attending (low stock quantities would mean that it would not be in their interest to attend the sale). Provincial auctioneers consider that it is only where cattle numbers at a sale are in excess of 75 (and it is known in advance that such numbers will be forthcoming) that sufficient buyers will be interested and it becomes a "proper auction". Unfortunately, this rarely happens as it takes a lot of planning and orchestration. During the homeland days, the government used to facilitate the auctions – sensitizing the community getting them interested and making sure that they came with their cattle – which made it more interesting for the buyers to come knowing that someone had done the necessary legwork. This has ceased in the last decade as it was quite expensive and was not sustainable.

Reduced number of animal sales and reduced numbers presented at sales create a negative spiral. Lower numbers at sales mean that greater unit costs have to be borne by auctioneers and buyers, which typically reduces interest in such sales. When scheduled sales in an area reduce, the typical "cash emergency sale" of the farmer means that he has to resort to the informal market and in turn this keeps the numbers at formal sales low.

There are also problems at auctions. An auctioneer alleged that there were definitely price rings operating at most sales in the old Ciskei area. These involved two or three buyers who decided in advance who would get to take what stock was available. If a new buyer appeared the tendency was for the ring to close ranks and bid the price up so that

the new buyer would pay high prices. Then another practice was to let buyers buy a few head and then close him off by outbidding him. That would mean that the new buyer would go back with a truck less than half full and realise that with such small quantities purchased, unit transport costs made the exercise futile.

Lots of 25-30 head (a truckload) are an important factor in the industry for anything less than that makes transport unduly expensive. And transport is an important factor particularly as feedlots are outside of the Province. Therefore any marketing intervention contemplated should take this into account. If the intervention might involve transport of cattle to an abattoir for instance, then some type of "selling club" or another co-operative type of activity would be necessary.

The results of five focus group discussions held with the larger Eastern Cape communal farmers²⁶, suggest a strong preference for using an auction system as opposed to direct selling. The reasons cited include:

- Transparency ("we can see what is happening").
- Better prices (although there was a perception that price rings do operate amongst auction buyers, this was countered by the belief that bidding would bring them higher prices than direct selling. The bidding process was seen to be more transparent and the farmer could understand what was going on).
- Immediate payment (farmers invariably sold for cash generation purposes in a financial emergency, and therefore valued the instant payment).
- Reduction of stock theft (although the SAP Stock Theft Unit is insisting on brands, the practice is not popular with farmers as it reduces hide value and destroys anonymity of ownership to 3rd parties e.g. when cattle are found grazing on the verges of main roads).".
- Pricing method (whole price per animal).

Existing support structures and programmes

There are several different initiatives targeted at the communal farmers but thus far they have had little impact on managing herd sizes and changing behaviour around the holding and trading of cattle. The challenges raised above, just seem too large and the incentives just are not there.

National Department of Agriculture

As part of the NDA's overall development programme (the Comprehensive Agricultural Support Project – CASP), they are trying to set up integrated service centers where they can provide central services to cattle owners who cannot afford proper services elsewhere. To be part of this pilot process, farmers must put their animals in the service center farm and keep them there. The animals will be treated for disease and kept away

²⁶ These focus groups amongst HDF, were carried out in June 2004 as part the 2nd phase of the field work. A more detailed analysis of this can be found in "*Small farmer cattle ownership production and marketing in the Eastern Cape Province*, 1st and 2nd phase report" prepared by Mike Murray for TTO.

from poorly maintained animals. This will teach the farmers the value of having well maintained animals.

Agricultural Research Centers - ARC

At the ARC's Dohne Agricultural Development Research Institute in Stutterheim, the "Livestock Improvement Project" works with both sheep and cattle farmers. It has four main objectives:

- 1. to sustain natural resources by reducing overgrazing;
- 2. Introduce higher grades of breeding animals (rams and bulls);
- 3. improving animal health, in general; and
- 4. a farm management programme

The project has made a list of the most productive areas where they think that the greatest opportunities lie and are trying to determine the true carrying capacity of the fields to indicate optimal levels of herd sizes, which they now think are too high. They are working with farmers' associations as the core implementers of the programme, and offer a potential point of access for identifying and reaching the better communal farmers.

Conclusions on the challenges of the Eastern Cape

Addressing the challenges of increasing household income and employment through improving production and marketing linkages among the communal cattle farmers is very difficult. The issues of land tenure, control of the conditions of production, and physical access to markets make it very difficult for any of the communal farmers to succeed in deriving a regular income out of raising livestock.

However, there are 4,150 large communal farmers (estimated to be about 5 percent of the 90,000) with more than 25 head of cattle. Many of these are interested in becoming commercial farmers, if they can get access to private land. They have the resources and the drive, but do not need have the access to land, or the full understanding of the challenges that commercial livestock raising entails. Further information needs to be collected on the availability of farms that they could buy and the right level of assistance to help them surpass the hurdles to accessing the government programmes that are there to help them, such as the LRAD.

Even so, the survey shows that while they plan their sale of animals more than the other communal farmers, their offtake is still quite low, only about 6.3 percent. Since these individuals are already thinking about commercial activities, it should be easier to increase their off-take with targeted communications programmes.

Even for the comparatively small number of emergent commercial farmers, who have private farms where they can control the production, keeping up (catching up) with technologies and production economics is very difficult. They seem to understand what they need to learn, but they are starting from a long ways back. This has led to inefficient operations. Unfortunately, there are probably not enough of the emergent commercial farmers (those with 100+ head of cattle) to make it worth a significant investment, though it might make a nice trial activity to run on a smaller scale.

Opportunities

It is clear from the dynamics of the communal lands that any major growth will most likely come from larger farmers, not smaller farmers. These former have more disposable cattle and are more interested in trying to become commercial. Just considering that there are about 4,150 large communal farmers with more than 25 head of cattle, doubling their off-take to (to 12.6%) will add R27,5 million a year to the industry in the Eastern Cape. Achieving this will be a function of:

- Reducing the holding time of cattle;
- Increasing control of herds through land acquisition;
- Improving market access; and
- Improving understanding of how the markets work and pricing information.

To achieve this, the following steps can be taken:

- Assist the emergent commercial farmers to stimulate off-take rates through better planning and understanding of the economics of livestock production;
- Identify the large communal farmers with the most potential to become commercial farmers (identify some key success characteristics) and provide market driven services that can help them become commercial farmers with higher off-take through land transfer;
- Assist development of sustainable market access facilities (auctions) and direct contract sale to abattoirs through facilitation of market linkages. These must have a clear understanding of where the potential is and how to make them happen;
- Develop commercially driven schemes to promote more rapid turnover (increase offtake) of animals to reduce overgrazing, while increasing income;
- Establish market driven systems to increase flow of information on prices and marketing mechanisms to the farmers;
- Increase flow of information on quality characteristics of cattle for buyers (grading); and
- Improve calving rates (with better off-take).
- Developing closer relations between larger farmers and the abattoirs to help stimulate outgrower type relationships.

In addition, further investigation is needed to determine whether there is scope to stimulate the provision of private services which can add value to the system:

- vet inspections,
- grading,
- information services,
- transport,
- production services/extension

These services are currently largely missing in the communal lands, because of lack of demand from weak understanding of the rationale for using them and lack of money to pay for them. If the value proposition could be adequately made, the demand might increase, but it is doubtful if this is possible on the communal lands given the constraints discussed above.